## PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC SIGNAL AT MD 2 (RITCHIE HIGHWAY) AND 11 TH AVENUE TO ACCOMMODATE THE REVISED DRIVEWAY FOR THE BROOKLYN PARK FIRE STATION. TWO EXISTING OPTICOM DETECTOR EYES, INSTALLED TO ACCOMODATE THE TEMPORARY LOCATION OF THE FIRE HOUSE DURING CONSTRUCTION, WILL BE REMOVED. IT IS ASSUMED THAT MD 2 (RITCHIE HIGHWAY) RUNS IN A NORTH-SOUTH DIRECTION.

# INTERSECTION OPERATION

#### 1. NORMAL OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE OPERATION, SEMI-ACTUATED MODE WITH THE MD 2 APPROACHES RUNNING CONCURRENTLY AND THE 11 TH AVENUE APPROACHES RUNNING CONCURRENTLY. EXCLUSIVE/PERMISSIVE LEFT TURN PHASES ARE PROVIDED FOR THE MD 2 APPROACHES. PEDESTRIAN SIGNALS WILL OPERATE CONCURRENTLY WITH THE MD 2 THROUGH PHASES PEDESTRIAN SIGNALS WILL OPERATE UPON PEDESTRIAN ACTUATION ACROSS THE NORTH LEG OF THE INTERSECTION.

## 2. SPECIAL OPERATION

THE INTERSECTION WILL OPERATE AS INDICATED ABOVE UNLESS A PUSH BUTTON IS ACTIVATED INSIDE THE BROOKLYN PARK FIRE STATION WHICH WILL PRE-EMPT THE TRAFFIC SIGNAL AND STOP ALL APPROACHES. THE SIGNAL HEADS FACING THE FIRE STATION WILL CHANGE FROM FLASHING RED TO FLASHING YELLOW.

ROBERT SNYDER

### CONTROLLER REQUIRMENTS

NO CHANGES ARE REQUIRED TO THE EXISTING TRAFFIC SIGNAL CONTROLLER, EXCEPT TO ENSURE THAT PHASE 3 (FIRE HOUSE PRE-EMPTION) IS ENABLED TO RESUME PRECONSTRUCTION OPERATION.

#### PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

THE CONTACT PERSONS FOR THE OFFICE OF TRAFFIC AND SAFETY ARE AS FOLLOWS:

KIMBERLY TRAN

ASSISTANT DISTRICT ENGINEER - TRAFFIC 410-841-1003

ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS SECTION 410-787-7631

JOHN MAYS ASSISTANT DISTRICT ENGINEER - UTILITIES 410-841-1005

CHARLES GEORGE ASSISTANT DISTRICT ENGINEER - MAINTENANCE

RICHARD DAFF CHIEF, TRAFFIC OPERATIONS DIVISION ED RODENHIZER CHIEF, SIGNAL OPERATIONS SECTION

410-787-7030

410-787-7652

# MAINTENANCE OF TRAFFIC

THE FOLLOWING WORK ZONE TRAFFIC CONTROL STANDARDS SHALL BE USED FOR THE PROJECT: STANDARD NO. MD 104.00

STANDARD NO. MD 104.31-02 (FLAGGING)

410-841-1002

STANDARD NO. MD 104.32-02 (INTERSECTION FLAGGING)

STANDARD NO. MD 104.33-02 (SHOULDER WORK)

### WIRING DIAGRAM



# EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE SHA. NO ITEMS WILL BE SUPPLIED BY THE SHA

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

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В	
A B,C	
A,C	
A,C A,C	
A,C	

QUANTITY	UNIT	DESCRIPTION
2	CY	TEST PIT EXCAVATION
16	LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING TAPE
18	LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS-ANY WIDTH
125	LF	FURNISH & INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
2	EA	FURNISH & INSTALL ELECTRICAL HANDHOLE
300	LF	FURNISH & INSTALL ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
425	LF	FURNISH & INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
180	LF	FURNISH & INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 A.W.G.)
6	LF	FURNISH & INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
4	EΑ	FURNISH & INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
2	EΑ	REMOVE EXISTING SIGNAL HEAD
1	EΑ	FURNISH & INSTALL CONDUIT BEND IN EXISTING BASE
110	LF	FURNISH & INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
5	SF	SHEET ALUMINUM SIGNS
15	LF	WOOD SIGN SUPPORTS 4 INCH x 4 INCH
2	EA	REMOVE EXISTING VEHICULAR TRAFFIC SIGNAL HEAD SECTION
2	EA	FURNISH & INSTALL 8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
1	LS	REMOVE AND SALVAGE EXISTING EQUIPMENT

C. EQUIPMENT TO BE REMOVED AND RETURNED TO THE SHA. 2 EA OPTICOM DETECTOR, DETECTOR EYE

WIRING LEGEND

A,B - 5 CONDUCTOR ELECTRICAL CABLE (No. 14 A.W.G.) C - 2 CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED No. 14 A.W.G.)

LW - LOOP WIRE (No. 14 A.W.G.)

**TECHNOLOGIES** 

Engineers CONSTRUCTION MANAGERS 10 NORTH PARK DRIVE HUNT VALLEY, MARYLAND

21030 (410) 316-7800

www.kci.com

# PHASE CHART

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
R TY Y G G	RYG	R TYYY GG G	R Y G	(R) (Y) (G)	R Y G	R Y Y	RYY	R Y G	R Y G	RYG	DW W	DW W	DW W	DW W	DW W	DW W

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PHASE 1 & 5	R <b>◆</b> G-	R	R <b>∢</b> G-	R	R	R	FLR	FLR	R	R	R	DW	DW	DW	DW	DW	DW	→
1 & 5 CHANGE	5		HASE HASE		6, 6	OR P	HASE	2 &	5,			DW	DW	DW	DW	DW	DW	<b>→</b>
PHASE 1 & 6	<b>◆</b> G- G	G	R	R	R	R	FLR	FLR	R	R	R	DW	DW	DW	DW	DW	DW	<b>→</b> ⊢
1 CHANGE	<b>◆</b> Y-/G	G	R	R	R	R	FLR	FLR	R	R	R	DW	DW	DW	DW	DW	DW	_ → ⊤
PHASE 5 & 5	R	R	<b>4</b> G-∕	G	R	R	FLR	FLR	R	R	R	DW	DW	DW	DW	DW	DW	> <sup>⊥</sup> ←
5 CHANGE	R	R	<b>◆</b> Y-/G	G	R	R	FLR	FLR	R	R	R	DW	DW	DW	DW	DW	DW	<b>→</b>
PHASE 2 & 6	G	G	G	G	R	R	FLR	FLR	R	R	R	WK	WK	WK	WK	DW	DW	> <sup>⊥</sup>
PED CLEAR	G	G	G	G	R	R	FLR	FLR	R	R	R	FL DW	FL DW	FL DW	FL DW	DW.	DW	0
2 & 6 CHANGE	Y	Y	Υ	Υ	R	R	FLR	FLR	R	R	R	DW	DW	DW	DW	DW	DW	оо Т
PHASE 4 & 8	R	R	R	R	G	G	FLR	FLR	G	G	G	DW	DW	DW	DW	DW	DW	>   <b>A</b> 1
4 & 8 CHANGE	R	R	R	R	Y	Υ	FLR	FLR	Υ	Υ	Υ	DW	DW	DW	DW	DW	DW	<b>→</b> ↑ ⊢
ALT. 8	R	R	R	R	R	R	FLR	FLR	G	G	G	DW	. DW	DW	DW	WK	WK	>
PED CLEAR	R	R	R	R	R	R	FLR	FLR	G	G	G	DW	DW	DW	DW	FL DW	FL DW	<b>*</b>
8 CHANGE	R	R	R	R	R	R	FLR	FLR	Y	Υ	Υ	DW	DW	DW	DW	DW	DW	. '
FIRE HOUSE PRE-EMPTION (PHASE 3)	R	R	R	R	R	R	FLY	FLY	R	R	R	DW	DW	DW	DW	DW	DW	\
3 CHANGE	R	R	R	R	R	R	Υ	Υ	R	R	R	DW	DW	DW	DW	DW	DW	- T
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	FLR	D A R K	D A R K	D A R K	D A R K	D A R K	D A R K	X

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION

C-17A

Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION

MD 2 (RITCHIE HWY) AND 11TH AVENUE

DRAWN BY: <u>G.C. DeJONG</u> F.A.P. NO. CHECKED BY: J.F. LAWRENCE 794E-GI S.H.A. NO. SHEET NO. SCALE: COUNTY: ANNE ARUNDEL T.I.M.S. NO. 07/18/03 2 OF 2 DATE: F309 LOG MILE: 02000240.68